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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,437	02/26/2004	John W. Callaci	CALLACI.001CP1	5674
20995	7590	11/14/2006	EXAMINER WOO, STELLA L	
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			ART UNIT 2614	PAPER NUMBER

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/789,437	CALLACI, JOHN W.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Stella L. Woo	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 October 2006.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-40 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-40 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 16, 2006 has been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns (US 6,526,173) in view of Gorodnichy (US 2005/0047662 A1).

Regarding claims 1, 7-10, 18, 20, 27-30, 37, 40, Burns discloses a method of constructing at least one intermediate frame of image between first and second frames, the method comprising:

identifying a plurality of points having at least one related characteristic in at least one of the first and second frames, (an object is identified in the starting frame and ending frame using a mathematical transformation which

maps the feature points in the starting frame to the corresponding feature points in the ending frame; col. 3, lines 14-63);

determining if at least one of the plurality of points has changed its position between the first frame and the second frame (detecting translational motion of the object between the starting frame and the ending frame; col. 4, lines 10-16);

associating the at least one of the plurality of points that has changed its position with at least a first pixel in the first frame and a second pixel in the second frame (feature points of the object are mapped in the starting frame to the corresponding feature points in the ending frame; col. 3, lines 14-63);

determining a relationship between a position of the first pixel and a position of the second pixel (determining a motion vector representative of translational motion of the object between the starting frame and the ending frame; col. 4, lines 10-16); and

defining a position of at least one intermediate pixel in the at least one intermediate frame (picture element points, identified in the starting frame, are mapped in each of the at least one intermediate frame (col. 3, lines 53-56).

Burns differs from the claims in that it does not specify identifying a plurality of points having at least one related characteristic based, at least in part, on numerical differences between the first and second frames. However, Gorodnichy teaches determining linear translation when the difference between pixels in a first image and a second image exceeds a predetermined threshold

(page 5, claim 21) such that it would have been obvious to an artisan of ordinary skill to incorporate such identifying based on numerical differences, as taught by Gorodnichy, within the method of Burns when determining linear translation.

Regarding claim 2, 21-22, in Burns, picture element points in the starting frame are mapped in each of the at least one intermediate frame (col. 3, lines 53-56).

Regarding claims 3-4, 11, 14-16, 23-24, 33-35, in Burns, redundant, detailed pixel data are not transmitted (col. 6, lines 19-23).

Regarding claims 5-6, 25-26, in Burns, a motion vector is determined, representative of translational motion of the object between the starting frame and the ending frame (col. 4, lines 10-16).

Regarding claim 12, 31, in Burns, more than one object can be identified (col. 5, lines 43-45).

Regarding claim 13, 32, in Burns, the image bit stream is transmitted to a receiver (col. 5, lines 33-46).

Regarding claim 17, 36, in Burns, the receiver receives information regarding the intermediate frame (col. 5, lines 63-67).

Regarding claim 19, 38, in Burns, a lower bandwidth communication channel can be employed to transmit the compressed video signal (col. 1, lines 19-20).

***Response to Arguments***

4. Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new grounds of rejection.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella L. Woo whose telephone number is (571) 272-7512. The examiner can normally be reached on Monday-Friday, 8:00 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



STELLA WOO  
PRIMARY EXAMINER